

CLAIMS

What is claimed is:

1. A dual-semiconductor wafer slippage sensor holder for chemical mechanical polishing (CMP) semiconductor fabrication equipment comprising:

a body designed to hold two wafer slippage sensors at an angle to a vertical plane, the body having a window to allow the sensors to detect wafer slippage; and

a cover situated over the window of the body to prevent slurry from spraying and drying onto the sensors during high-pressure rinse cleaning of a platen of the CMP semiconductor fabrication equipment.

2. The holder of claim 1, wherein the body is designed to hold the two wafer slippage sensors in a horizontally opposite configuration from one another.

3. The holder of claim 1, wherein the sensors held in the body are able to detect wafer slippage where a semiconductor wafer and a platen from which the semiconductor wafer can slip both have a substantially identical attribute.

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4. The holder of claim 3, wherein the substantially identical attribute is color.

5. The holder of claim 3, wherein the substantially identical attribute is reflectivity.

6. The holder of claim 3, wherein the substantially identical attribute is brightness.

7. The holder of claim 1, wherein the angle to the vertical plane is substantially fifteen degrees.

8. The holder of claim 1, wherein the cover extends substantially one centimeter from the body.

9. A chemical mechanical polishing (CMP) semiconductor fabrication system comprising:

a rotatable polishing pad for polishing a semiconductor wafer using slurry;

an oppositely rotatable platen underneath the polishing pad on which the semiconductor wafer is positioned for polishing by the

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polishing pad;

dual sensors for detecting semiconductor wafer slippage of the semiconductor wafer from the platen; and

a holder to hold the dual sensors at an angle to a vertical plane, the holder having a window exposing the sensors.

10. The system of claim 9, wherein the holder comprises a cover situated over the window to prevent the slurry from spraying and drying onto the dual sensors during high-pressure rinse cleaning of the platen.

11. The system of claim 10, wherein the cover extends substantially one centimeter from the holder.

12. The system of claim 9, wherein the dual sensors are situated in horizontally opposite configurations.

13. The system of claim 9, wherein the platen has an attribute substantially identical to an attribute of the semiconductor wafer.

14. The system of claim 13, wherein the attribute is color.

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15. The system of claim 13, wherein the attribute is reflectivity.

16. The system of claim 13, wherein the attribute is brightness.

17. The system of claim 13, wherein the angle to the vertical plane is substantially fifteen degrees.

18. A method comprising:

tuning an intensity of a first wafer slippage sensor of a dual sensor of a chemical mechanical polishing (CMP) semiconductor fabrication equipment to a minimum setting;

positioning a polishing pad of the CMP semiconductor fabrication equipment over a platen of the CMP semiconductor fabrication equipment corresponding to the first wafer slippage sensor;

placing a wafer having a red backside on the platen corresponding to the first wafer slippage sensor; and

tuning the intensity of the first wafer slippage sensor towards a maximum setting until a wafer slippage calibration indicator for the first wafer slippage sensor turns on.

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19. The method of claim 18, further initially comprising:

tuning an intensity of a second wafer slippage sensor of the dual sensor of the CMP semiconductor fabrication equipment to a maximum setting;

positioning the polishing pad of the CMP semiconductor fabrication equipment over a platen corresponding to the second wafer slippage sensor;

placing a wafer having a green backside on the platen corresponding to the second wafer slippage sensor; and

tuning the intensity of the second wafer slippage sensor towards a minimum setting until a wafer slippage calibration indicator for the second wafer slippage sensor turns off.

20. The method of claim 18, further comprising removing the wafer having the red backside from the platen to test wafer slippage detection by the first wafer slippage sensor.